

Ants collected by Prof. F. Silvestri
in the Hawaiian Islands

The following collection of ants made by Professor Filippo Silvestri during a sojourn of a few days in the Hawaiian Islands represents a small but valuable addition to the list of species published by Forel in the "Fauna Hawaiiensis". This author enumerates twenty species of Formicidæ from the islands. Professor Silvestri has discovered an interesting new species of *Cerapachys* and the ergatomorphic males of *Ponera perkinsi* Forel. Hitherto such males have been found in only a few of the numerous species of *Ponera* (*P. ergatandia* Forel, *P. eduardi* Forel, *punctatissima* Roger, and *ragusai* Emery)

1. — *Cerapachys (Syscia) silvestrii* sp. nov.

Worker. Length 25 mm.

Head longer than broad, nearly as broad in front as behind, with feebly convex sides, not very acute anterior and posterior angles and broadly concave posterior border. Eyes absent. Mandibles acute, with several subequal denticles. Frontal carinæ approximated, erect, subparallel, slightly diverging behind, and in front surrounding the antennal foveæ but not joining the short, straight, longitudinal ridges on the cheeks. Clypeus very short, with straight anterior border. Antennae 9-jointed, robust; scape incrossed distally, reaching about half way between the anterior and posterior corners of the head: first funicular joint about as long as broad, joints 2-8 decidedly broader than long, terminal joint large, glandiform, as long as the seven preceding joints

taken together. Thorax distinctly narrower than the head, three times as long as broad, nearly as broad behind as in front, with perceptible, though faint, promesonotal and mesoepinotal sutures, the former nearly straight, the latter arcuate. In profile the dorsal surface of the thorax is flattened, the epinotal declivity abrupt, concave and marginate on the sides. Petiole and postpetiole each about as long as broad, subrectangular, with rounded corners, the postpetiole somewhat larger and broader than the petiole, which in profile has an abrupt anterior, flattened dorsal and abrupt posterior surface and a large, more or less rounded, compressed antero-median ventral projection. The postpetiole is similar in profile except that its posterior declivity is shorter and its ventral projection thick and not compressed. Gaster elongate elliptical, a little less than twice as long as broad; first segment forming the greater portion of it, decidedly longer than the petiole and postpetiole together, truncated at the base; apical segments small and short. Legs rather stout.

Subopaque; gaster slightly more shining. Body, except the appendages, covered with foveolæ which are of the same size and almost as dense on the gaster and pedicel as on the head and thorax.

Hairs pale yellow, reclinate, long and rather abundant on the the body, shorter on the legs and scapes.

Ferruginous; mandibles, clypeus and antennæ, except the glandiform terminal joint, darker and more brownish.

Six specimens from Hilo.

This species belongs to the subgenus *Cysias* as defined by Emery, and closely resembles *C. papuanus* Emery from New Guinea and *C. australis* Forel from Australia. From *papuanus* the new species differs in sculpture, as the head is not more coarsely foveolate than the remainder of the body, the head is distinctly broader than the thorax, the latter has traces of promesonotal and mesoepinotal sutures and the antero-ventral projection of the petiole is larger; from *australis* it differs in being much more opaque, with denser foveolæ, and in having a somewhat longer head and decidedly more robust antennæ. I have followed Forel in placing *C. silvestrii* in the subgenus *Syscia* and in not recognizing, *Cysias*. This latter subgenus according to the Swiss myrmecologist, is untenable, since *C. biroi* Forel is intermediate in the length of its first gastric segment between the

typical species of the two subgenera. This statement is also made by Forel concerning *C. australis*, but two types of this species in my collection have the first gastric segment very nearly as long as in *papuanus*, *pusillus* and *silvestrii*. For the present, nevertheless, it seems to be more advisable to place all the species of *Cerapachys* with 9-jointed antennæ in the subgenus *Syscia*.

2. — *Ponera perkinsi* Forel.

Fourteen workers and three males from Kilauea. Three of the former have large eyes like one described by Forel, but differ in no other respects from the normal workers. The males are ergatomorphic.

Male. Length 2.8 — 3 mm.

Resembling the ergatomorphic male of *P. eduardi*. Head about as broad as long, convex above and on the sides, with straight, posterior border. Mandibles small, folded under the narrow, convex clypeus, which is nearly as long as broad. Eyes small, consisting of only 9 or 10 facets, situated at the anterior fifth of the head. Ocelli absent. Antennæ 13-jointed; scape as long as the first four funicular joints; nearly three times as long as broad; joints 2-6 broader than long, 7 and 8 as long as broad, remaining joints somewhat longer than broad. Thorax similar to that of the worker but mesonotum more convex and epinotum much more rounded and sloping, and without a distinct angle between the base and declivity. Petiole and gaster like those of the worker, but the former with the node more rounded and somewhat more conical, the latter with the typical male appendages.

Surface of head, thorax and abdomen shining and very finely punctate.

Body and appendages clothed with short, whitish pubescence and without erect hairs.

Sordid yellow; margin of eyes and clypeus and the frontal groove blackish. Occiput, sutures of thorax, articulations of legs, especially the knees and the stridulatory organ of the gaster, brown.

3. — **Pheidole megacephala** Fabr.

Numerous males, females, soldiers and workers from Kilauea, Hilo and Tantalus, Honolulu. According to Forel, this tropicopolitan ant occurs in all the Hawaiian Islands from "the coast to an elevation of 3000 ft.",

4. — **Tetramorium guineense** Fabr.

Two workers from Kilauea. Forel records this species from Oahu, Molokai and Hawaii.

5. — **Tapinoma melanocephalum** Fabr.

Ten workers from Honolulu. Recorded by Forel also from Waianae, Oahu, Lanai and Molokai.

6. — **Prenolepis bourbonica** Forel subsp. **hawaiensis** Forel.

One male and ten workers from Hilo agree perfectly with Forel's description of this form, which he records from Oahu, Molokai and Hawaii, « from the coast to 4000 ft.

7. — **Camponotus maculatus** Fabr. subsp. **mitis**

F. Smith var. **hawaiensis** Forel.

Five winged females and fourteen workers from Honolulu, the type locality of this species, which, according to Forel, lives « in and around houses ».

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